

CLAIMS

WHAT IS CLAIMED IS:

1. A system of expandable tubulars, comprising:

5

a first expandable tubular;

a second expandable tubular; and

10 a connector system coupling the first expandable

tubular to the second expandable tubular, the

connector system having a plurality of

interlocking extensions comprising receiving

extensions and insertion extensions, each

receiving extension having a connector opening

with a narrow outer portion and a wider inner

portion to interlockingly receive a corresponding

insertion extension.

15 20 2. The system as recited in claim 1, further comprising a

slide cover positioned to secure the plurality of interlocking

extensions.

3. The system as recited in claim 1, wherein each insertion extension comprises a broad head for receipt in the wider inner portion.

5 4. The system as recited in claim 3, wherein the receiving extensions extend from an end of the first expandable tubular and the insertion extensions extend from an adjacent end of the second expandable tubular.

10 5. The system as recited in claim 4, wherein the first expandable tubular comprises a plurality of bistable cells.

6. The system as recited in claim 5, wherein the second expandable tubular comprises a plurality of bistable cells.

15 7. The system as recited in claim 6, wherein the connector system comprises a sand barrier.

8. The system as recited in claim 7, wherein the sand barrier is positioned along the interior of the first expandable tubular and the second expandable tubular.

9. The system as recited in claim 7, wherein the sand barrier is positioned along the exterior of the first expandable tubular and the second expandable tubular.

5 10. A device that may be used in a wellbore, comprising:

an expandable tubular having a plurality of bistable cells and an expandable connector end formed with a plurality of extensions.

10

11. The device as recited in claim 10, wherein each extension of the plurality of extensions comprises an opening shaped for insertion of an extension from an adjacent expandable tubular.

15

12. The device as recited in claim 10, wherein each extension of the plurality of extensions comprises an insertion head for insertion into an extension from an adjacent expandable tubular.

20

13. The device as recited in claim 10, wherein the expandable tubular is expandable along a portion, the portion being less than its entire length.

14. The device as recited in claim 10, wherein the expandable tubular comprises a threaded connector end generally opposite the expandable connector end.

5

15. The device as recited in claim 10, wherein the expandable tubular comprises a second expandable connector end generally opposite the expandable connector end.

10 16. A connector system for connecting a pair of adjacent tubulars, comprising:

a plurality of connector portions extending from a first tubular; and

15

a plurality of corresponding connector portions disposed at an end of a second tubular, the plurality of connector portions being configured to interlockingly receive the corresponding connector portions when the first tubular and the second tubular are rotated with respect to each other.

20

17. The connector system as recited in claim 16, wherein each connector portion comprises a plurality of spaced circumferentially oriented ridges extending radially inward, and each corresponding connector portion comprises a plurality of 5 corresponding ridges extending radially outward for receipt between the spaced circumferentially oriented ridges upon relative rotation of the first tubular and the second tubular.

18. The connector system as recited in claim 17, further 10 comprising a sleeve disposed around at least one of the connector portions.

19. The connector system as recited in claim 14, further comprising a sand barrier positioned along the plurality of 15 connector portions and the plurality of corresponding connector portions when engaged.

20. The connector system as recited in claim 18, wherein the sleeve comprises a slide cover sized to slide over an 20 interlocked connector portion and corresponding connector portion.

21. The connector system as recited in claim 16, wherein the first tubular and the second tubular are expandable.

22. A method of expanding tubulars, comprising:

5

forming a first tubular and a second tubular from a plurality of bistable cells;

10 coupling the first tubular to the second tubular by a plurality of interlocking extensions; and

radially expanding the plurality of interlocking extensions during expansion of the first tubular and the second tubular.

15

23. The method as recited in claim 22, wherein coupling comprises axially moving the plurality of interlocking extensions into engagement and rotating the second tubular with respect to the first tubular.

20

24. The method as recited in claim 22, further comprising forming the interlocking extensions with spaced, circumferentially oriented ridges.

25. The method as recited in claim 22, further comprising forming the plurality of interlocking extensions from extensions having receiving openings and extensions having heads sized for 5 receipt in the receiving openings.

26. The method as recited in claim 22, further comprising securing the first tubular to the second tubular with a retention sleeve.

10

27. The method as recited in claim 22, further comprising placing an internal sand barrier along the plurality of interlocking extensions.

15 28. The method as recited in claim 22, further comprising placing an external sand barrier along the plurality of interlocking extensions.

29. A system for expanding tubulars, comprising:

20

means for coupling a first bistable tubular to a second bistable tubular; and

means for radially expanding the plurality of interlocking extensions during expansion of the first bistable tubular and the second bistable tubular.

5

30. The system as recited in claim 29, wherein the means for coupling comprises a plurality of interlocking features.

31. The system as recited in claim 29, wherein the means for radially expanding comprises an expansion device moved through a longitudinal opening of the first tubular and the second tubular.

32. A system of expandable tubulars, comprising:

15

a first expandable tubular;

a second expandable tubular coupled to the first expandable tubular via a connector system; and

20

a sand barrier disposed along the connector system.

33. The system as recited in claim 32, wherein the sand barrier is external to the connector system.

34. The system as recited in claim 32, wherein the sand barrier is internal to the connector system.

35. The system as recited in claim 32, wherein the first expandable tubular comprises one or more bistable cells.

10 36. The system as recited in claim 32, wherein the second expandable tubular comprises one or more bistable cells.

37. A device for use in a wellbore, comprising:

15 a crossover having an end formed as an expandable connector.

38. The device as recited in claim 37, further comprising a non-expandable end opposite the end.

20

39. The device as recited in claim 37, further comprising an expandable tubular section.

40. The device as recited in claim 39, wherein the expandable tubular section comprises a plurality of bistable cells.

5 41. A system of expandable tubulars, comprising:

a first expandable tubular;

a second expandable tubular; and

10 a slide cover mounted on the first expandable tubular, wherein the slide cover may be slid into engagement with the second expandable tubular to secure the second expandable tubular to the first expandable tubular.

15 42. The system as recited in claim 41, further comprising a plurality of interlocking extensions disposed at adjacent ends of the first and second expandable tubulars.

20 43. The system as recited in claim 42, wherein the slide cover is disposed around the plurality of interlocking

extensions to secure them in interlocked engagement.

44. The system as recited in claim 41, wherein the first expandable tubular comprises a plurality of bistable cells.

5

45. The system as recited in claim 44, wherein the second expandable tubular comprises a plurality of bistable cells.

46. A system for connecting tubulars, comprising:

10

a first tubular;

a second tubular; and

15 a connector system coupling the first tubular to the second tubular, the first tubular having a plurality of receiving extensions and the second tubular having a plurality of insertion extensions, each receiving extension being configured to interlockingly receive a corresponding insertion extension, wherein the outside diameter of the connector system does not

20

exceed the outside diameter of either the first tubular or the second tubular.

47. The system as recited in claim 46, further comprising
5 a slide cover positioned to secure the plurality of interlocked insertion extensions and receiving extensions.

48. The system as recited in claim 46, further comprising
a sleeve disposed about at least one interlocked receiving
10 extension and insertion extension.

49. The system as recited in claim 46, wherein the first expandable tubular comprises a plurality of bistable cells.

15 50. The system as recited in claim 49, wherein the second expandable tubular comprises a plurality of bistable cells.

51. The system as recited in claim 46, wherein the connector system comprises a sand barrier.

20

52. The system as recited in claim 46, wherein the first tubular, the second tubular and the connector system are radially expandable.

53. The system as recited in claim 46, wherein each receiving extension of the plurality of receiving extensions comprises an opening shaped to interlockingly receive one of the insertion extensions.

5

54. The system as recited in claim 53, wherein each insertion extension of the plurality of insertion extensions comprises an insertion head for insertion into the opening of an adjacent receiving extension.

10